



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Ref: EPR-N

AUG 22 2008

Larry W. Sandoval, Jr.
District Ranger
Laramie Ranger District
2468 Jackson Street
Laramie, WY 82070

Re: Spruce Gulch Bark Beetle and
Fuels Reduction Project - Draft EIS
CEQ # 2008025

Dear Mr. Sandoval:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) Region 8 has reviewed the *Spruce Gulch Bark Beetle and Fuels Reduction Project Draft Environmental Impact Statement* (DEIS) in the Medicine Bow-Routt National Forest. The EPA reviews EISs in accordance with its responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Section 309 of the Clean Air Act directs EPA to review and comment in writing on the environmental impacts of any major federal agency action. EPA's comments include a rating of the environmental impact of the proposed action and the adequacy of the NEPA document.

The activities proposed in the DEIS include implementing bark beetle salvage and suppression vegetative treatments and hazardous fuels abatement treatments within the Spruce Gulch analysis area that encompasses approximately 32,322 acres. Within the analysis area, there are 31,782 acres of National Forest System (NFS) land, 390 acres of private land, and 150 acres of State of Wyoming land, although proposed actions outlined in the DEIS would apply to NFS land only.

According to the DEIS, vegetative treatments in the proposed action will be applied to a total of 4,372 acres, including 1,859 acres of clearcutting, 146 acres of clearcutting products other than logs, 38 acres of overstory removal, and 2,329 acres of other treatments describes as adaptive management prescriptions. These prescriptions include clearcut, salvage, sanitation/salvage, shelterwood, group selection, individual tree selection, commercial thinning, and overstory removal. There are 22 clearcut units that exceed the 40-acre maximum size limitation within the treated area, which range between 41 acres and 236 acres, the latter comprising of three adjacent units. Of the 4,372 total treated acres, approximately 1,113 acres

fall within residential/forest interface. The proposed project also includes construction of 0.5 miles of new roads and 3.7 miles of temporary roads, as well as reconstruction of 7.8 miles of existing roads, for a total of 12 miles of road construction.

Based on the document review, EPA is primarily concerned with the following three components described in the DEIS: 1.) potential impacts to water quality and wildlife habitat from new road construction and proposed silvicultural preferences; 2.) lack of specificity regarding implementation parameters for applying adaptive management prescriptions; and 3.) insufficient and/or inconclusive analysis criteria used in determining the proposed action and elimination of the Uneven-Aged Management alternative action. Detailed comments regarding these three areas of concern, as well as other notable points, are enclosed with this letter.

EPA's role is to evaluate the potential effects of proposed actions and the adequacy of the information in the DEIS. We rate this DEIS an "EC-2" (environmental concerns, insufficient information) outlined in EPA's enclosed ratings criteria. The EC rating indicates that the reviewer has identified environmental impacts that should be avoided in order to adequately protect the environment. We also recommend additional analysis and information to fully assess and mitigate all potential impacts of the management actions. A complete description of EPA's EIS rating system is enclosed, as well as detailed comments used to determine the project's rating.

We appreciate the opportunity to participate in the review of this project, and look forward to resolving these matters prior to the issuance of the Final EIS (FEIS). If we may provide further explanation of our concerns during this stage of your planning process, please contact me at 303-312-6004, or Melanie Wasco of my staff at 303 312-6540.

Sincerely,



Larry Svoboda
Director, NEPA Program
Ecosystems Protection and Remediation

Enclosure:

Ratings Criteria

Detailed Comments
Spruce Gulch Bark Beetle and Fuels Reduction Project
Medicine Bow-Routt National Forest
Laramie Ranger District

Water Quality and Wildlife Habitat

In addition to approximately 1,192 acres of wetlands, riparian areas, and floodplains within the analysis area, surface waters located in the analysis area are considered Class 1, Outstanding Waters. Other surface waters and adjacent wetlands are classified as Class 2AB, Fisheries and Drinking Waters. Lastly, intermittent streams in the area are classified as Class 3B if no fisheries are known to be present. There are no impaired water bodies within the analysis area.

The Pelton Creek watershed and North Platte River/Sixmile watershed, including Pelton, Park Run, Elkhorn, Sixmile, Porter and Walbright Creeks will be affected by this project. On page 71 of the DEIS, it states "Recent information on stream conditions in the watersheds could not be located for this assessment." This is a concern since knowledge of the current conditions of the streams and watersheds is critical for sound decision-making regarding project alternative selection, specifically in relation to location determinations for road construction activities and future evaluations for adaptive management prescriptions concerning silvicultural treatments.

According to the Proposed Action in the DEIS, the new system road construction of 0.5 miles would parallel an intermittent tributary to Pelton Creek, and 3.7 miles of new temporary road would create 11 intermittent stream crossings. The DEIS also estimates that one perennial and 20 intermittent stream crossings would be necessary for reconstruction and use of existing system and temporary roads. Additionally, both short-term and long-term effects on stream bed and bank stability will be influenced by temporary culvert placements at 32 stream/road crossings. Because the DEIS is not precise about the location of these proposed road activities, EPA strongly recommends that figures be included in the FEIS (in addition to Figures 3.6 and 3.7) that map projected road construction/activity in relation to the watersheds and streams in the analysis area. Additionally, the classifications of the affected waters should be clearly identified on the map(s). This information is important for understanding the likely impacts of the Proposed Action on water quality.

Although the Forest Service plans on implementing BMPs to mitigate the impacts of road construction activities, sediment transport to streams is unavoidable with both aggressive harvesting and road construction activities. According to page 76 of the DEIS, the Forest Service will not be applying for a stormwater discharge permit, citing an exemption associated with the nature of the road construction as it relates to silvicultural activities. Additionally, the Forest Service will be seeking a turbidity waiver from the State of Wyoming indicating that turbidity

standards are expected to be exceeded during periods of construction. Because of the potential impact to Class 1, Outstanding Waters, as well as the remaining streams and watersheds in the analysis area including impacts to fisheries habitat, EPA recommends that the Forest Service minimize road construction activities to avoid adverse impacts to watersheds. Although the DEIS does not include road decommissioning for currently existing roads in any of the alternatives, EPA notes that road decommissioning will be funded and executed in the analysis area under the Travel Management, Eastern Snowy Range project. EPA commends the Forest Service for directing and planning for the closure of 43.7 miles of routes in the analysis area. EPA is hopeful that roads that cross streams or otherwise impact water quality are given priority for decommissioning in the Travel Management project.

For road construction under the proposed alternative, EPA's general recommendations include:

1. Minimize road construction and road density to reduce adverse impacts to watersheds;
2. Locate roads away from streams and riparian areas as much as possible;
3. Locate roads away from steep slopes or erosive soils;
4. Minimize road stream crossings;
5. Stabilize cut and fill slopes;
6. Provide adequate road drainage and control surface erosion with adequate waterbars, crowns, rolling dips and ditch relief culverts to promote drainage off roads or along roads;
7. Consider road effects on stream structure and seasonal spawning habitats when determining alignment; and
8. Allow for adequate large woody debris recruitment to streams and riparian buffers near streams.

EPA encourages the Forest Service to include as much information as possible in the FEIS that watershed restoration actions will be included in the project to help mitigate for both project-related and beetle epidemic impacts. Wherever possible, EPA recommends the Forest Service take action to reduce the likelihood of an adverse stream listing.

Adaptive Management Procedures

Both the Proposed Action (Forest Health Emphasis) and Alternative #2 (Fuels Management Emphasis) include adaptive management prescriptions as a component of applicable vegetative treatments. Generalizations regarding the implementation of adaptive management strategies are expressed in the DEIS. Specifically, on page 16, the DEIS states "Although treatment locations (units) have been determined for the adaptive management prescriptions, it would be difficult to determine the exact timing, treatment types, and specific amounts of treatment that would best address the rapidly spreading MPB epidemic at this point in time." Similarly, on page 24, the DEIS also reports "Adaptive Management is founded on common sense, experience, research, monitoring, and adjusting practices based on what is happening on the ground. It provides the ability to be flexible and to modify an action in response to natural or human activity, new information, or unforeseen events. This approach provides opportunities to make and implement decisions quickly."

Because the parameters for engaging and implementing the specific types of adaptive management vegetative treatments are not expounded upon in the DEIS, EPA's review has identified several potential improvements in the adaptive management process outlined in this document. In instances where the responsible agency can lay out thresholds and decision trees to guide future decisions, EPA supports the use of adaptive management. Without such thresholds and management options, adaptive management is not substantially different from traditional management. True adaptive management can reduce the need for future NEPA actions, or at least reduce the scope of future NEPA decisions. We offer several specific suggestions with respect to adaptive management that should be included in the FEIS:

- 1) The National Forest Service (NFS) should include threshold values that would be protective of air quality, visibility, aesthetics (noise), water quality, and wildlife impacts. These thresholds would represent the minimum desired conditions in the analysis area. These thresholds would be the trigger points that would determine when additional management decisions (potentially including NEPA) are necessary. We believe that these thresholds can be set in this EIS based on existing information and the expertise of NFS science and management staff, and that there is no reason to defer the disclosure of threshold values to some later date. The only threshold that may prove difficult to determine due to lack of study might be visitor experience.
- 2) Ideally, this management plan would not only identify the thresholds, but would also discuss and identify management alternatives and mitigation that would be implemented should a threshold be exceeded. Inclusion of thresholds and management alternatives in this EIS would reduce or eliminate the need for additional NEPA involvement regarding this issue in the near future.
- 3) The FEIS should provide assurance that funding is secured for the adaptive process, including for additional NEPA analysis if needed. If this funding is lost, or the required monitoring does not happen for any reason, the FEIS and ROD should include a specific, environmentally conservative course of action that will ensure full protection of forest resources.
- 4) The FEIS should include more detail on the proposed adaptive management process including the mechanisms for public disclosure of the analysis and the decisions. The roles of the NFS, other Agencies, independent science, and the public should be clearly stated. The FEIS should discuss any future decision points in this adaptive process that would require NEPA analysis.

If the Ranger District would find it beneficial, EPA would be happy to provide additional guidance from the U.S. Department of Interior on procedures for implementing adaptive management practices.

Proposed Actions and Alternatives

One of the alternatives eliminated from detailed study was Uneven-aged Management which involved no clearcutting. The DEIS states that the alternative was eliminated due to noncompliance with Forest Plan goals regarding forested stands that are infested with insects and diseases. It goes on to establish that lodgepole pine is shade intolerant and identifies clearcutting as the optimum harvest method used to create openings for regenerations and growth of intolerant tree species citing the Forest Management Act of 1976. EPA maintains that the no-clearcutting option was a reasonable if not potentially preferable approach to balancing mitigation of the beetle epidemic and forest health, and it appears this alternative was not given adequate analysis prior to discounting. In other documentation concerning the Medicine Bow-Routt National Forest, the Forest Service states that the bark beetle epidemic cannot be stopped. Therefore, the assertion in the Proposed Action that states that treatments (including clearcutting) would reduce beetle spread and restrict beetle populations to localized areas seems to be contradictory. Furthermore, the DEIS states that clearcutting is not the only option for the lodgepole pine tree species. In view of this information, the Uneven-aged Management alternative should have been explored more thoroughly.

Additionally, EPA counters that clearcutting poses the highest risk of all silvicultural treatments for sediment loading into streams and riparian areas. The Proposed Action plans on exercising clearcutting practices on extensive acreage within the analysis area, which concerns EPA due to the expected erosion and increased runoff caused by this type of harvesting. The acreage range of clearcutting is not clearly delineated in the document. On page 42 of the DEIS, it notes that information for environmental consequences is based on the maximum treatment potential identified for the Proposed Action (Forest Health Management) and Alternative #2 (Fuels Management Emphasis). It goes on to state that resource analyses were conducted using the assumption that all units with an adaptive management prescription would be clearcut, and therefore acreages, mileages, and effects described could be overstated. EPA believes that a more accurate range of projections should be provided, coupled with selective adaptive management vegetative treatments as discussed above.

Finally, a general observation is that Alternative #2, Fuels Management Emphasis as well as the No Action Alternative #1 are less environmentally intrusive than the Proposed Action regarding both the number of acres of vegetative treatments and the total miles of road construction. According to the comparison of alternatives outlined on page 34 in Table 2.8 *Alternative Components*, the total number of treated acres for Alternative #1 is 0 acres and Alternative #2 is 2,352 acres compared to the 4,372 acres that will be affected under the Proposed Action. Similarly, there will be no active road construction under Alternative #1 and 4.3 miles of road construction under Alternative #2, compared to the 12 miles of projected road construction under the Proposed Action. As outlined above, the number of acres that are affected by silvicultural/fuels abatement treatments and road construction directly correlate to the environmental impact to stream health and wildlife habitat.

Miscellaneous

On pages 19-20 of the DEIS, it is not clear in Table 2.3 *Units, Treatments, and Insect Infestations – Proposed Action* if the number of acres listed in the center column represents the total acres of each corresponding unit, or if it's the total acres for application of silvicultural treatments and hazardous fuels abatement treatments within each specified unit. This delineation should be clearly identifiable in the FEIS.

**U.S. Environmental Protection Agency Rating System for Draft Environmental Impact
Statements
Definitions and Follow-Up Action***

Environmental Impact of the Action

LO - - Lack of Objections: The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC - - Environmental Concerns: The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO - - Environmental Objections: The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU - - Environmentally Unsatisfactory: The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 - - Adequate: EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 - - Insufficient Information: The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 - - Inadequate: EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

